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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,920	01/22/2002	Takashi Enomoto	P21598	4938

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GREENBLUM & BERNSTEIN, P.L.C.  
1950 ROLAND CLARKE PLACE  
RESTON, VA 20191

EXAMINER

RAIZEN, DEBORAH A

ART UNIT	PAPER NUMBER
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2873

DATE MAILED: 03/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/050,920

Applicant(s)

ENOMOTO, TAKASHI

Examiner

Deborah A. Raizen

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE Three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☒ Claim(s) 5 and 7-10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Ueda et al. (5,345,338). In regard to claim 1, Ueda discloses a zoom lens system (first embodiment, Fig. 1 and Table 1 in col. 10) that has a negative first lens group (1), a positive second lens group (2), and a negative third lens group (3), in this order from an object; wherein zooming is performed by moving the first through third lens groups in the optical axis direction (Fig. 22, and col. 4, lines 16-18); wherein the negative first lens group consists of a negative single lens element having a concave surface facing toward the object (surface r1 faces the object); and wherein the zoom lens system satisfies the following condition:  $-1 < r1/fW < -0.3$  wherein r1 designates the radius of curvature of the object-side concave surface of the negative single lens element; and fW designates the focal length of the entire zoom lens system at the short focal length extremity (for the first embodiment, the ratio is -0.77).

In regard to claim 2, in the Ueda zoom lens system, the negative single lens element having the concave surface facing toward the object is a negative meniscus lens element (r2 is negative and larger than r1).

In regard to claim 3, the Ueda zoom lens system satisfies the condition because the Abbe number of the negative single lens element is 64.2, which is greater than 50.

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In regard to claim 6, the Ueda zoom lens system satisfies the condition:  $0.05 < (d_{12W} - d_{12T})/fW < 0.15$  wherein  $d_{12W}$  designates the distance between the negative single lens element and the second lens group at the short focal length extremity (Tables 1 and 2 show that it is 19.6 mm at  $-0.5$  magnification, corresponding to the short focal length extremity); and  $d_{12T}$  designates the distance between the negative single lens element and the second lens group at the long focal length extremity (6.63 mm). The ratio of the difference to the shortest focal length is 0.067, which is within the range of the condition.

2. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Watanabe (5,270,864). In regard to claim 1, Watanabe discloses a zoom lens system (Embodiment 5, Fig. 5 and Table 5 in col. 9) comprising a negative first lens group (1), a positive second lens group (2), and a negative third lens group (3), in this order from an object; wherein zooming is performed by moving the first through third lens groups in the optical axis direction (Fig. 20 and col. 1, lines 67-68); wherein the negative first lens group consists of a negative single lens element having a concave surface facing toward the object ( $r_1$  faces object), and wherein the zoom lens system satisfies the following condition:  $-1 < r_1/fW < -0.3$  wherein  $r_1$  designates the radius of curvature of the object-side concave surface of the negative single lens element; and  $fW$  designates the focal length of the entire zoom lens system at the short focal length extremity (the ratio is  $-0.57$  for the fifth embodiment, which is within the range).

In regard to claim 4, the Watanabe zoom lens system (Embodiment 5) satisfies the following condition:  $1.7 < n_d$  wherein  $n_d$  designates the refractive index of the d-line of the negative single lens element ( $N_1$  is 1.717, which is greater than 1.7).

*Allowable Subject Matter*

3. Claims 5 and 7-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The following is a statement of reasons for the indication of allowable subject matter:

The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of claims 5 and 7-10, in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper.

The prior art fails to teach a combination of all the claimed features in claim 5. For example, these features include the detailed structure, zooming movements, and condition recited in claim 1 and also the condition regarding the ratio of the longest focal length of the system to the focal length of the first lens element.

The prior art fails to teach a combination of all the claimed features in claim 7. For example, these features include the detailed structure, zooming movements, and condition recited in claim 1 and also the condition regarding the ratio of the diagonal image height to the shortest focal length of the system.

The prior art fails to teach a combination of all the claimed features in claim 8. For example, these features include the detailed structure, zooming movements, and condition recited in claim 1 and also the condition regarding a ratio of longest to shortest focal lengths.

The prior art fails to teach a combination of all the claimed features in claim 9. For example, these features include the detailed structure, zooming movements, and condition recited

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in claim 1 and also the limitation of an aspheric surface in the second lens group and the condition regarding the resulting change in the spherical aberration coefficient. Although Kreitzer (cited below in the conclusion) does have an aspheric surface in the second lens group, it is not clear whether the surface would inherently satisfy the condition.

The prior art fails to teach a combination of all the claimed features in claim 10. For example, these features include the detailed structure, zooming movements, and condition recited in claim 1 and also the limitation of an aspheric surface in the third lens group and the condition regarding the resulting change in the distortion coefficient. Although Kreitzer (cited below in the conclusion) does have an aspheric surface in the third lens group, it is not clear whether the surface would inherently satisfy the condition.

### *Conclusion*

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kreitzer et al. (5,268,792) discloses several embodiments that meet the limitations of claim 1 and possibly of other claims, already rejected. Furthermore, most the Kreitzer embodiments have aspherical surfaces in both the second and third lens groups. However, it is not clear whether the surfaces would inherently satisfy the conditions of claims 9 and 10.

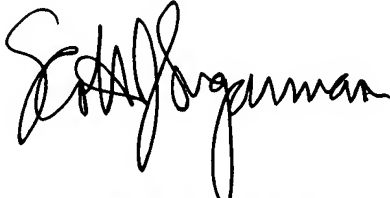
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah A. Raizen whose telephone number is (703) 305-7940. The examiner can normally be reached on Monday-Friday, from 8 a.m. to 4:30 p.m. EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (703) 308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

dar  
March 17, 2003



**Scott J. Sugarman**  
Primary Examiner